REMARKS

This application was originally filed in the French language by Atofina. It has been purchased by DuPont and was translated into English for filing in the US. Thus the claims are being amended to correct and clarify various issues and to put the application in condition for allowance.

Claim 1 was amended to eliminate the term "miniemulsion" and recite emulsion droplet size, to eliminate incorrect Markush language, to render the claim in conformance with the specification, and to recite the low level of coagulum. Basis for the amended claim is in the English specification at page 6, line 21 to page 7, line10; page 9, lines 18-23; page 11, lines 15-17; and page 5, lines 4-10.

Claims 2 and 3 were each amended to correct the Markush terminology, and to move preferred embodiments into new dependent Claim 10. Basis for Claim 2 is in the specification at page 8, lines 23-26. Basis for new Claim 10 is in original Claim 2 and at page 8, lines 23-26. Basis for Claim 3 is at page 7, line 11 to page 8, line 2.

Claims 4 and 5 were each amended to correct the Markush terminology, to conform Claim 4 to the specification, and to move preferred embodiments from Claim 5 into new dependent Claim 11. Basis for Claim 4 is at page 8, lines 3-10, and for Claim 5 and new Claim 11 at page 9, lines 5-12.

Claim 7 was amended to correct a typographical error to delete the comma after "of" and before "leather".

New Claim 9 is added to specify the polar monomer (C). Basis is at page 8, lines 11-17. New Claim 12 is added to specify the presence of a crosslinking agent. Basis is at page 8, lines 18-22.

Applicants respectfully submit that the addition of the four new dependent claims does not require any further payment of fees because the total number of claims is less than 20. However, if it is determined that any fees are due, please charge them to Deposit Account 04-1928 of E. I. du Pont de Nemours and Company.

I. Rejection under 35 USC 112

Claims 1-8 were rejected under 35 USC 112, second paragraph, as indefinite. Applicants respectfully traverse this rejection.

The claims were stated to be unclear in use of the term "miniemulsion" and "miniemulsion polymerization". Applicants have amended Claim 1 to delete this term

and to clarify that the initial emulsification step is such to yield very fine droplets of the monomer mixture, each having a diameter of 50-500nm.

The claims were stated to be unclear in use of the term "including" as it could refer to either preferred embodiments or Markush groups. Applicants have amended each of Claims 1-5 to eliminate this term and to insert proper Markush groups where appropriate. Preferred embodiments were moved into newly added dependent claims.

Applicants therefore submit that claims 1-12, as amended herein, do particularly point out and distinctly claim the subject matter of the invention, and are in compliance with all requirements of 35 USC 112, second paragraph. Applicants respectfully request withdrawal of this rejection.

II. Rejection under 35 USC 102

Claims 1-8 were rejected under 35 USC 102(b) as anticipated by GB Patent 933512 of Langerak et al. Applicants respectfully traverse this rejection.

The cited reference was stated to teach emulsion polymerization of the claimed ingredients such that it is inherently a miniemulsion polymerization as in the claimed invention. However, inherency must be a necessary result and not merely a possible result. In re Oelrich, 212 USPQ 323 (CCPA 1981). There is no teaching in Langerak et al. of how to achieve polymer with a level of coagulum of less than 1%. See page 2, left column, lines 15-19 wherein the undispersed coagulum must be removed by straining or filtration. See also page 4, right column, lines 92-105, again referencing filtering to separate and straining to remove solid material. In contrast, no such separation step is required in Applicants' claimed process. Further there is no teaching or suggestion in Langerak et al. of how to achieve such a low level of coagulum simultaneously with a level of organic cosolvent of less than 0.2%. Prior art attempts to use nonvolatile solvents resulted in decreases in stability or performance.

Applicants' claimed process provides the benefit of an excellent yield of stable polymer emulsion which is basically devoid of coagulum and organic solvent. It contains less than 1% by weight of coagulum of the total weight of monomers, and has less than 0.2% by weight of organic cosolvent. This is specified in the claims. Thus a final separation or purification step is not required to remove coagulum or volatile solvents. This results from use of a separate emulsification step wherein the droplets created are of a very small diameter, providing polymerization sites which generate polymer with particles of comparable small diameter size. This decreases

formation of coagulum. See the specification at page 9, lines 13-23; and Example 1 at page 11, lines 15-17 indicating droplets having a diameter of 100-200 nm. Langerak et al. do not teach or suggest a process providing these results. Applicants therefore maintain that the claimed invention is novel over Langerak et al. under 35 USC 102, and is not suggested by this reference.

III. Conclusions

In view of the amendments and remarks herein, Applicants respectfully maintain that Claims 1-12 are patentable over the cited art, and respectfully request that a patent be issued on these claims. Should any questions arise, the Examiner is invited to contact Applicant's attorney at the number noted below.

Respectfully submitted,

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